

WHAT IS CLAIMED IS:

1. A hard disk drive (HDD) comprising:
at least one rotatable disk;
at least one write element configured for writing data to the disk in tracks;
and
at least one HDD controller controlling the write element, the controller always writing adjacent tracks in sequence toward an inner diameter (ID) in a first radial region of the disk, the controller always writing adjacent tracks in sequence toward an outer diameter (OD) in a second radial region of the disk.
2. The HDD of Claim 1, wherein at least one data band is established by at least two contiguous tracks.
3. The HDD of Claim 1, wherein tracks in at least one of: the first radial region, and the second radial region, define a track pitch, and the write element defines a width equal to or larger than the track pitch.
4. The HDD of Claim 1, wherein the write element is configured for perpendicular recording.

5. The HDD of Claim 1, wherein the tracks are shingled.
6. The HDD of Claim 1, wherein the first region is radially outward from the second region, and the HDD employs perpendicular recording.
7. The HDD of Claim 1, wherein the first region is radially inward from the second region, and the HDD employs longitudinal recording.
8. The HDD of Claim 1, further comprising a random update zone interposed between the first and second regions.
9. The HDD of claim 8, wherein a track pitch in the random update zone is equal to or larger than a track pitch in at least one of: the first region, and the second region, to reduce adjacent track interference in the random update zone.
10. A magnetic disk data recording system comprising:
at least one disk defining an inner zone of at least one band of data, each band being established by at least two contiguous data tracks, the disk also defining an outer zone of at least one band of data and a mid-zone of at least one band of data between the inner and outer zones; and

control means for writing adjacent tracks in the inner zone always in a first radial sequence, track to track and for writing adjacent tracks in the outer zone always in a second radial sequence opposite to the first radial sequence, track to track.

11. The system of claim 10, wherein tracks at least one of: the inner zone, and the outer zone, define a track pitch, and the control means controls a write element defining a width larger than the track pitch.

12. The system of claim 10, wherein a track pitch in the mid-zone is at least as large as a track pitch in at least one of: the inner zone, and the outer zone, to reduce adjacent track interference in the mid-zone.

13. The system of Claim 10, wherein the write element is configured for perpendicular recording, and the first radial sequence is radially outward.

14. The system of Claim 10, wherein the write element is configured for longitudinal recording, and the first radial sequence is radially inward.

15. The system of Claim 10, wherein the tracks are shingled.

16. A hard disk drive (HDD) comprising:

at least one disk defining bands of data each established by at least two contiguous concentric data tracks, the disk having at least an inner annular zone and an outer annular zone;

at least one write element configured for writing data to the disk; and

means for controlling the write element such that it writes data in tracks in the zones to avoid overwriting previously written tracks within the same band.

17. The HDD of Claim 16, wherein the means for controlling is at least one drive controller, the controller undertaking the controlling step by using radial writing sequence.

18. The HDD of Claim 15, wherein the HDD employs perpendicular recording, and the controller writes adjacent tracks in the inner annular zone sequentially radially outwardly on the disk, track to track, the controller always writing adjacent tracks in the outer annular zone sequentially radially inwardly on the disk, track to track.

19. The HDD of Claim 15, wherein the HDD employs longitudinal recording, and the controller writes adjacent tracks in the inner annular zone sequentially radially

inwardly on the disk, track to track, the controller always writing adjacent tracks in the outer annular zone sequentially radially outwardly on the disk, track to track.

20. The HDD of Claim 16, comprising an annular mid-zone between the inner and outer annular zones.

21. The HDD of Claim 16, wherein the tracks are shingled.

22. The HDD of Claim 16, wherein tracks at least one of: the inner annular zone, and the outer annular zone, define a track pitch, and the write element defines a width larger than the track pitch.

23. The HDD of claim 20, wherein a track pitch in the annular mid-zone is equal to or larger than a track pitch in at least one of: the inner annular zone, and the outer annular zone.